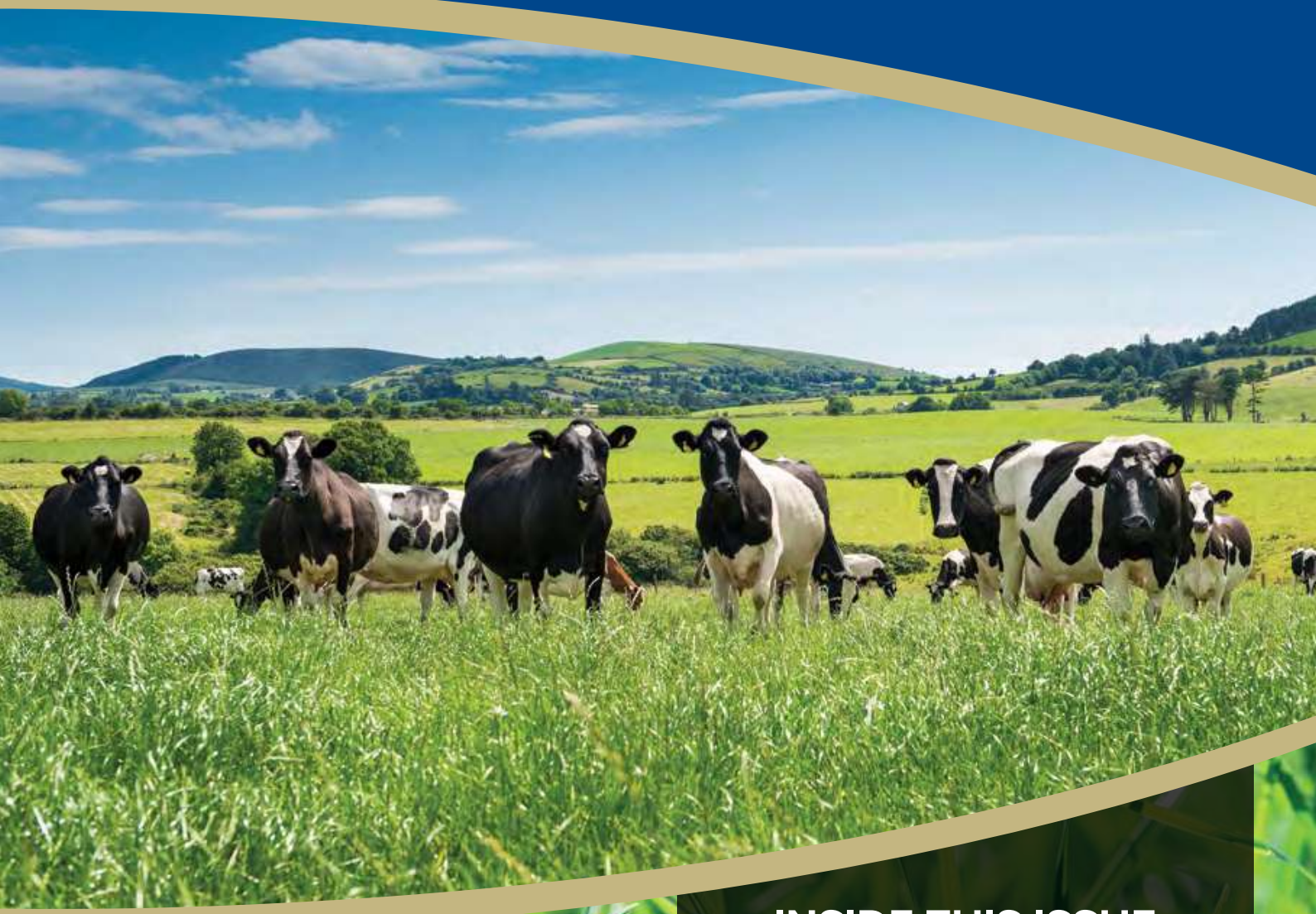
Milk Matters

SUPPORTING SUSTAINABLE FARMING



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ISSUE 113 - AUGUST 2022

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Golden Valleys, Growing Naturally
AGRI BUSINESS

Welcome to the August edition of

MILK MATTERS

DAIRYGOLD'S DAIRY ADVISORY BULLETIN

Dear Milk Matters Reader,

In this month's, **Nutrition Matters**, we explore how over the next 6 weeks we can feed our cows adequately, maintaining yield and holding milk protein % as high as possible for as long as possible while building grass covers.

Karl Skehan introduces us to our improved pre-calver gold specification for the coming season and explains how this new specification can decrease the incidences of metabolic disorders on your farm.

Heifer rearing is one of the biggest costs on your farm. Are your heifers on target now, to be at the correct liveweight at housing and subsequently at breeding?

To keep grass in your cows' diet for as long as possible you need to start increasing rotation length and building covers from early August. In **Grass Matters**, John Maher examines the key management techniques necessary to successfully achieve this.

Within our **Animal Health and Fertility** section, Martin Kavanagh discusses how the have a successful and stress free Milk recording. Milk recordings that are well planned result in fewer metering problems, more reliable results, and a more rewarding and stress-free recording.

Yours Sincerely,

Liam Stack

Liam Stack M.Agr.Sc
RUMINANT TECHNICAL MANAGER,
DAIRYGOLD AGRIBUSINESS

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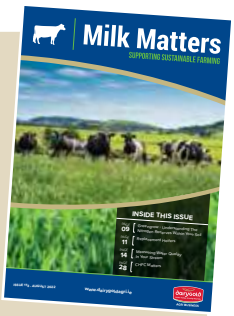
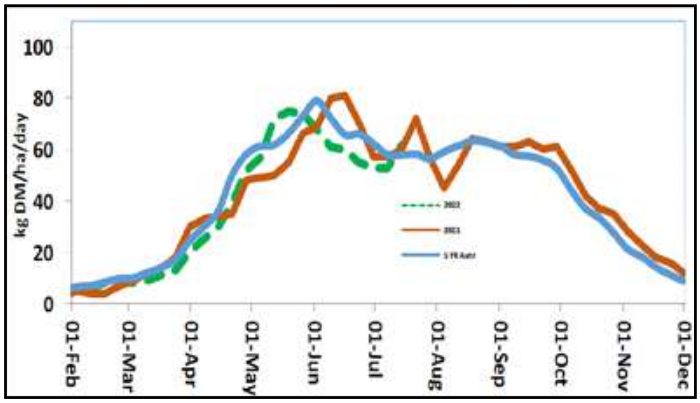


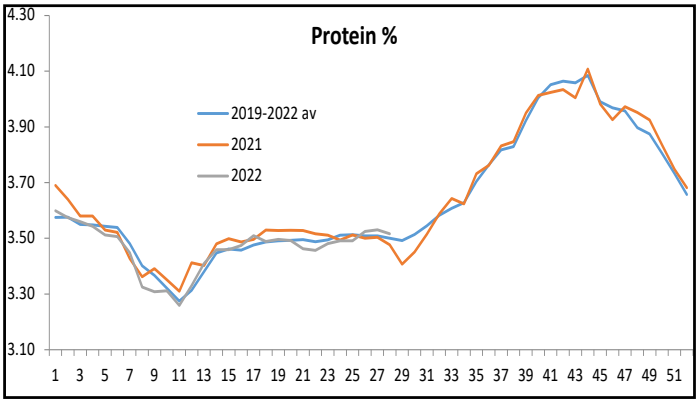
email: lstack@dairygold.ie

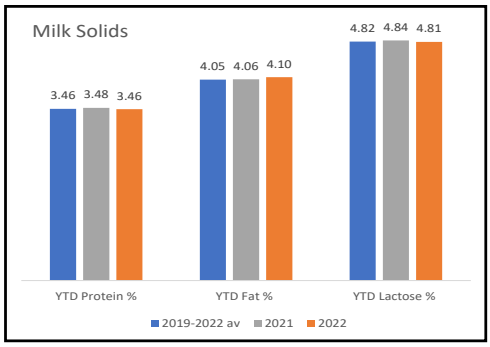
THE YEAR TO DATE

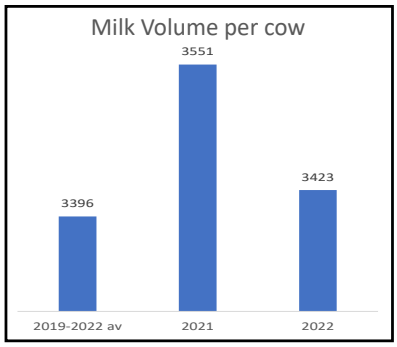
By LIAM STACK,
M.Agr.Sc, Ruminant Technical Manager

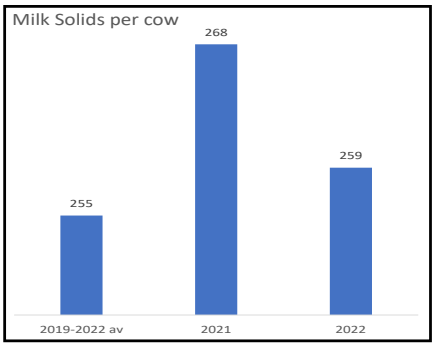
Year to Date (up to week 28, 2022)

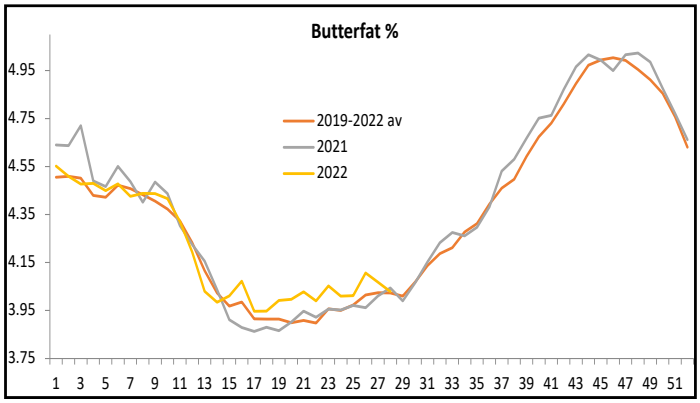


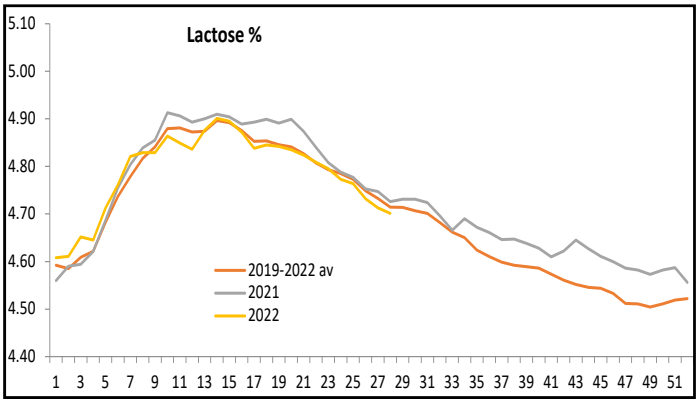












NUTRITION MATTERS

By LIAM STACK,
M.Agr.Sc, Ruminant Technical Manager

As we approach the backend of the year, solids start to climb, and milk value starts to peak. There is a lot of valuable milk yet to flow. For the next 6 weeks we need to feed our cows adequately, maintaining yield and holding milk protein % as high as possible for as long as possible while building grass covers.

To maintain production, intake must be maximized; grass quality must be maintained and a balanced amount of concentrates must be fed.

How do we maximise milk yield and milk protein from here to year end?

1. Maximise your cows' intakes of good quality grass
   a. Spread fertiliser, applying 1 unit or nitrogen per day, sulphur, phosphorus and potassium when allowed and appropriate to maximise grass growth. Slurry, dairy washings, and protected urea all have a role.
   b. Poor grassland management across the summer can result in the build-up and carryover of stem into paddocks. Stemmy paddocks are not only of lower digestibility and energy (UFL) level but they also lead to lower grass intakes. A lower intake of a lower energy feed compounds the issues. Successful grassland management is built around a compromise between adequate daily herbage allowance and post grazing sward height. We must walk the tight rope, of supplying enough grass to meet our cows intake requirements, while maintaining adequate grazing pressure to ensure paddocks are grazed out tight enough.

KEY POINT: An increase of 1% in grass digestibility will increase dry matter intake by 0.3-0.4kg DM, supplying enough energy for c.0.75 ltrs of milk.

2. Feed concentrates in balance with grass.

Have one eye on milk yield decline/milk protein % and one on post grazing sward heights. We must achieve a balance between the two. Be mindful of any growth issues, adding sufficient concentrates and or a buffer if needed to meet our cows' intake requirements during these times.

Building grass across the month of August

As john Maher outlines in Grass Matter, we must gain about 2 days in rotation every week during August or increase average farm cover by up to 450 kgDM/cow across the month.

To achieve this increase in grass levels we must:

- Grow a lot of grass
- Lower our feed demand to allow for grass covers to build

PastureBase Ireland data clearly demonstrates that many dairy farmers end up with less grass than they should on the 1st of September. This can result in cows' intakes being squeezed, accelerated yield declines and low levels of milk lactose. Of all the years, with our current high milk price we need to act now to prevent this.

Growing Grass

Fertiliser for August

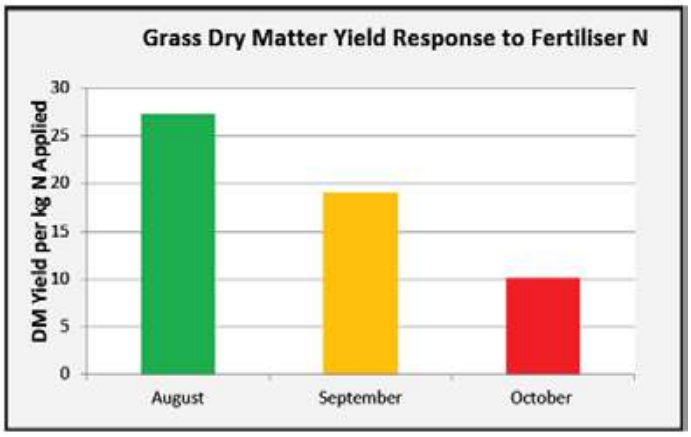
In early August the target is to spread a unit N/day, at a 21 day rotation you should be spreading 21 units N/acre. As rotation length increases as we build grass cover in August the units N spread should be increased accordingly.

There is an opportunity to skip or halve the fertilizer N applied on paddocks with a high clover content (30% plus) this time of the year. Clover is at its most active this time of the year and will fix N to replace chemical N fertilizer.

Final N fertilizer application of the year

The aim of the final N fertilizer application of the year is boost grass growth in order to build grass covers for the Autumn. Many farmers are completing their final blanket spread of N in the last week of August compared to waiting unit the deadline day of the 14th September. By doing this they are taking advantage of the superior growth rates in the end of August compared to mid-September and getting a greater return from the final blanket spread of N fertilizer.

Recent Teagasc trial results illustrating the grass dry matter yield response to N fertilizer applications at three different timing in the Autumn. Source David Wall and Ian Fox, Teagasc Johnstown Castle.



How much Nitrogen should I apply?

The units N/acre applied will vary across farms and should be decided upon based on the remaining fertilizer N allowance of the farm for the year and on the amount of grass on the farm at that time. If rotation length and average farm cover is on target or ahead of target an application of 20-25 units will be sufficient. However, if rotation length and average farm grass cover is behind target an application of 30-35 units/acre should be applied. When applying fertiliser don't forget P, K and S.

Lowering Grass Demand

To build grass in August we need to lower of demand to less than our growth. Grass grows on average 55-65kgDM/Ha per day in August. A cow will eat c.18kg DM per day. Every 1.25kg of concentrates you feed will lower cows grass DM requirement by 1kg DM.

Grass demand at 1.5kg of meal and differing stocking rates

Current Diet for 28 kg average				
Grass (kg DM)	16.5			
Concentrates (kg)	1.5			
Stocking Rates (Lu/Ha)	2.5	3	3.5	4
Growth Needed to Meet Demand (Kg DM Per Day)	41	50	58	66

To slow demand:

- Increase concentrate
- Introduce silage

Increasing concentrates is the preferred options as it maintains production better than silage.

Increasing concentrate feeding from 1.5 kg to 3kg will drop grass demand by 15%, increasing concentrate feeding from 1.5 kg to 6kg will drop grass demand by 30%.

Impact of differing measures on grass growth requirements to meet demand

	Stocking rate Lu/Ha)	2.5	3	3.5	4
+ 1.5kg per head. Total Concentrates feed = 3kg per day	Growth Needed to Meet Demand (Kg DM Per Day)	35	42	49	56
+ 4.5kg per head. Total Concentrates feed = 6kg per day		29	35	40	46
Buffer feed with 1 bale of grass silage per 40 cows		29	35	40	46

The more concentrates and or buffer you add the lower your grass demand.

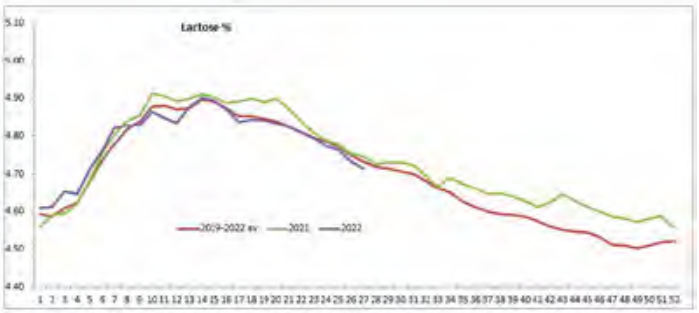
Economics of concentrate feeding Autumn 2022:

In late lactation 1kg of concentrates can generate 1kg of extra milk. With concentrates costing c.€450-500/T and milk valued at up to 60c/ltr (including higher solids value), every 1kg or 45-50c spend on concentrates is going to return c.60c worth of milk.

A 90-cow herd feeding an additional 1 kg of concentrates will return €270-405 per month after the concentrate cost. Feeding 2 additional kgs will

return €540-810 per month after the concentrate cost. Feeding concentrates must be done responsibly and in balance with grass growth and demand.

Be vigilant on milk lactose:



Milk lactose is mirroring the last 4 years. Decision we make now will impact October's milk lactose.

Lactose levels of less than 4.45% affect your monthly balance score card, if your lactose levels are less than 4.2% it will affect both your balance score card and monthly base price.

Managing cow energy intake from mid-august is critical to your October lactose levels. Managing energy intake is all about managing total intake. If your farm is highly stocked at 3.5 LU/ha and on target for grass come mid-august you will have a cover c.750kg DM/ha. You will want to increase this to c.1000 kg DM/ha and 1200kg DM/ha by mid-September. i.e you want to build c. 450kgDM grass per ha across the month or you want grass supply (growth) to exceed demand by an average of 15kg DM/ha across the 30 days.

If grass grows at 55kgDM/ha across those 30 days your demand needs to be no greater than 40kgDM/ha. Concentrate feeding and or a buffer of grass silage is required to lower grass demand to this level.

At 3.5 LU/ha and with concentrates alone, 5.5Kgs are required to drop demand to 40kg. At lower concentrates feeding levels silage will be needed.

Farms stocked at lower levels (c.2-2.5 LU/ha) will not require this level of feeding. (See Grass Matter for grassland management advice).

In previous years if you have been building these covers without the additional feeding you have been either:

- under feeding your cows to build covers, this will start a lactose decline that will ultimately lead to low levels from October
- not building your cover adequately in August

For more information on anything discussed in this article please contact your Area Sales Manager, your local branch Agri lead or our Inside Sales Team on 022 31644.

NO PLOUGHING AFTER 31ST MAY:

As part of the Department of Agriculture, Food and the Marine's (DAFM's) terms and conditions for farmers applying for a 2022 Nitrates Derogation, derogation farmers cannot plough grassland after the 31st of May. This probation period is one of the conditions that was attached by the European Commission to the extension of Ireland's nitrates derogation as agreed in March 2022.

Recent negative trends in water quality saw a number of conditions strengthened in the current action plan, such as this requirement, with the objective of reducing the risk of nutrient losses to waters.

According to the DAFM: "Ploughing can lead to an increase in nitrogen mineralisation in the soil and there is a risk that this nitrate may leach to groundwater." The nitrates derogation is granted by the European Commission on the condition that there are no negative impacts to the environment.

GREENGROW SOIL HEALTH PROGRAMME

Protected Urea

The environmental reasons to use protected urea are a constant, by using protected urea instead of CAN or straight Urea there are lower GHG and ammonia emissions. More than ever before, the economic reasons to use protected urea are huge, with a kg of nitrogen from protected urea being 45% cheaper than CAN.

KEY POINT: Protected urea has 78% lower ammonia emissions than urea and 71% lower N2O emissions than CAN, while being 45% cheaper per kg of nitrogen than CAN.

Cost to fertiliser 1 acre of summer grass (1 unit per day from May 1st to July 31st)

CAN	€167

Protected Urea	€115

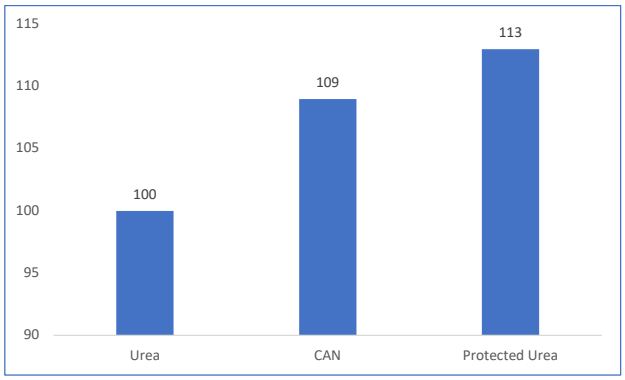
Prices correct on the 20/5/2022

Products available:

Protected Urea is available as a 46% straight nitrogen product, as a 38% nitrogen + 7% sulphur product and as a 29% nitrogen + 14% potassium product.

	N	K	S
Protected Urea	46	-	-
Protected Urea + Sulphur (S)	38	-	7
Protected Urea + Potassium (K)	29	14	3

The relative yield of grass from using protected urea compared to urea and CAN in long-term trials



KEY POINT: A Dairy farm switching to 100% protected urea – reduces total emissions by 7-8%.

Protected Urea and the summer sun:

Protected urea and CAN are different chemically. CAN is a 50:50 mix of ammonium and nitrate. Both are plant available. Urea must be converted to ammonium to become plant available. This transformation happens very quick (in good conditions) and Teagasc research from Moorepark and Clonakilty has shown no difference in the amount of grass these fertilisers grow in a standard rotation across the summer i.e the initial changed need to the urea compound Is not affecting growth. However, as with all fertilisers protected urea will not grow grass if the weather conditions are not favourable to grow grass. In these situations, we should be questioning if we should be spreading any fertiliser not the different products.

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Understanding the nitrogen reserves within your soil

Nitrogen within the soils comes as organic and mineral. Organic N makes up 98% of the total nitrogen and is unavailable to crops. Microbes, in the soil through a process of mineralization convert organic nitrogen to mineral nitrogen, making it available to your crops. The more biologically healthy your soil is the better your microbes are working. Maintaining a good soil structure, organic matter content and soil pH will provide the best living conditions microbes.

Dairygolds Analytical Services Laboratory in Lombardstown, has developed a test that can determine the amount of total and labile or potentially available nitrogen contained within your soils while also measuring the microbial activity and C:N ratio within your soils. This innovative analysis can then combine the 4 pieces of data to give a scale of the expected actual nitrogen release. Annually, labile nitrogen is converted to available Nitrogen by microbial activity. To maximise the effectiveness of this process requires a favourable C:N ratio, high soil biological activity, high labile nitrogen content and favourable climatic conditions.

Results to date from our bioSCAN tests in Lombardstown Analytical Services Laboratory show that there is on average 5100kg of total N in every hectare of soils. Of that 5100kg, on average 639kg is potentially available annually.

Of that 639kg, it is expected that between 50-220 kg of N becomes available each year, depending on the microbial activity within your soil. There is a big range in microbial activity, the higher the tested valued the better, however we had some soil with very low results, these soils will struggle to turn the potential nitrogen release into actual nitrogen release.

bioSCAN results to date:

	Average			Range
Total N	5100			1600-11000
Labile or Potentially available N	639			165-1270
Microbial activity*	156			55-297
	Good Microbial Conditions	Average Microbial Conditions	Poor Microbial Conditions	
Available N (kg N/Ha)	220	130	50	

For microbial activity a value of <100 is poor, 101-275 is average and >276 is good.

Turn Knowledge into Action:
Once you know your soils status you need to build a fertiliser program to promote overall soil biological health. This program should prescribe the best use of organic manures and lime, while encompassing new innovative technologies that work to stimulate the life contained within your soil.

If you want to know more about soil biology and how it interacted with nitrogen release, if you want to establish your soils nitrogen levels and biological status, please or if you want to build a fertiliser program that is designed to improve overall soil biological health please contact your local Area Sales Manager or our inside sales team on 022-31644

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AGRI BUSINESS

L to R Seamus O'Mahony, Head of Commercial Dairygold Agri Business, William McCullagh, Dairy farmer, Dripsey, Liam Stack, Ruminant Technical Manager at the launch of the GREENGROW Soil Health Programme

As it stands, 79% of soils are outside optimum soil fertility levels yet hold the potential to grow more grass. This growth boost and soil health opportunity is achievable for all farmers through this targeted and measurable GreenGrow programme... just one part of the agri evolution that we are leading as part of our commitment to support the farmers we serve.

Seamus O'Mahony,
Head of Commercial Dairygold Agri Business

WHAT IS GREENGROW?

Dairygold has always had a part to play with its members in providing innovative ways to balance efficient & profitable livestock and crop production with consumer needs.

As the food supply chain faces continual pressure to reduce its environmental footprint, Dairygold Agri Business remains committed and ideally placed to help our farmers tackle the challenges ahead. This includes the need to reduce nitrogen usage by 20% as outlined with the EU Green Deal to deliver on agri sustainability goals.

Farmers need to ensure soil performance and retain their profitability levels while delivering carbon reduction. Dairygold has invested in innovative soil science and technology that deliver soil health solutions.

We are proud to launch GreenGrow, our Soil Health programme which combines bespoke research with our in house, accredited laboratory, to provide decision support through our advisory sales team. This advice is customised to the soil in your fields.

The programme has been developed in direct response to the need to reduce carbon footprint across all European farms through reduced nitrogen use, increased carbon sequestration, and improved soil performance.

BENEFITS

- ✓ **Targeted application of lime to correct and maintain soil pH**
- ✓ **Targeted timely application of slurry to maximise its effective use**
- ✓ **Bespoke fertiliser plan on a field-by-field basis**
- ✓ **Bespoke fertiliser plan to correct and maintain soil chemical and biological health**
- ✓ **Maximising the release of your soils stored nitrogen and phosphorus, reducing your need for chemical fertiliser**
- ✓ **Allowing your farm to grow more grass with the same chemical fertiliser use or to grow the same amount of grass with a lower fertiliser application**
- ✓ **Improving your farms carbon footprint, increasing sustainability and nitrogen use efficiency**

HOW DOES IT WORK?

Through timely soil sampling and a customised plan for lime, slurry and chemical fertiliser, the scheme aims to improve soil chemical and biological health, and ultimately maximise nitrogen use efficiency. The net results of the GreenGrow programme is that your soil will release a greater amount of their stored nitrogen and phosphorus, allowing you to grow more grass efficiently, reduce your dependence on chemical fertiliser and increase your nitrogen use efficiency.

THE RESULTS

For a spend of less than €1 per acre per year you can establish the chemical and biological health of your soil, design and implement a fertiliser program that feeds your soil to maximise its background nitrogen and phosphorus release, growing an additional 0.85Tn DM of grass per ha. For the average Dairygold supplier, this annual €1/acre spend could potentially yield €50/acre* of extra grass.

* Expected Return is based on increasing soil P index from 1 to 3 and increasing soil biological health by 10% with grass valued at €80/T DM. Actual return may be higher or lower, depending on a farm's individual circumstances.

To join the Programme, please contact your local Area Sales Manager or Inside Sales

022-31644
agriinfo@dairygold.ie

www.dairygoldagri.ie

REPLACEMENT HEIFERS

By JENNIFER OWENS,

Latest figures indicate the cost of rearing a heifer to calve down at 24 months is €1550, with the cost doubling if she doesn't calf until 36 months of age. The 24-month calving heifer won't start to leave a profit until halfway through her 2nd laction.

Poor fertility is often caused by them not reaching their target weights and being underweight by their mating start date (MSD). Under weight heifers will struggle to cycle correctly and in turn lead to poor conception rates. If these heifers happen to go in calf, to reach mature weight will be difficult, they will produce less milk in their first laction and will struggle to go back in calf. This can all be avoided if we tune into our heifer calves now and ensure their target weights are being met.

The best way to identify if calves are on target or not on target is to weigh each calf. This will take a bit of time but will be time well spent for the future of you herd.

The main objective is to have all calves and in-calf heifers on target going in for the winter. This period before housing is the easiest time to correct this issue as in the Spring with cows calving you won't have time to solve this issue and next thing you know it will be time for breeding. My advice would be to solve it now as it is one less thing to have to watch in the Spring.

If you know the weight of your mature herd it is simple to identify the target weights for your herd.

If for example:
Mature herd weight is 580kg
6-month old calves 174kg (30% of mature weight)
18- month In-calf heifers 406kg (70% of mature weight)
24- months old at calving 522kg (90% of mature weight)

	6 month Weanling (kg)	18 month Weanling (kg)
% mature bodyweight	30%	70%
Breed		
Holstein Friesian	175	405
British Friesian	165	385
X Breed	150	365

What can I do for heifers not on target?

- Weigh heifers
- Separate underweight heifers from those at or above target weight
- Give priority grazing and meals to the underweight group
- Feed 1-2kg/head/day to the underweight heifers. (Calves on good grass plus meal will gain 0.8kg/day which is 100kg in 125 days)
- Re-weigh in 6 weeks-some heifers will be heavy enough to join the heavy group and some heifers may have to stay in the light group for a longer period of time.

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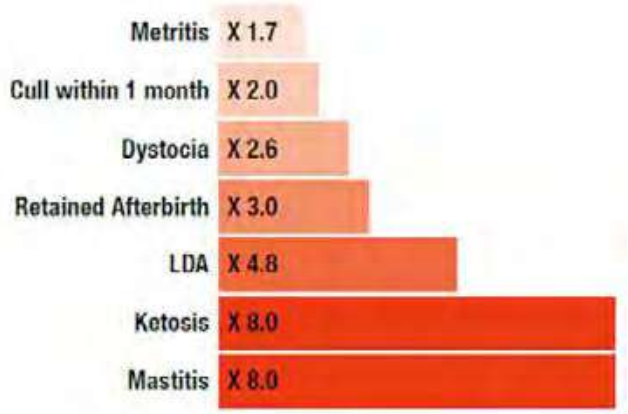
NEW PRE-CALVER GOLD SPECIFICATION FOR THE COMING SEASON

By KARL SKEHAN, B.Agr.Sc,
Area Sales Manager, Mob: 085 8001089

Over the past number of seasons, we have seen a growing number of milk fevers at farm level. Milk fever is a gateway disorder. Cows that suffer from milk fever are at multiple times greater risk of suffering from retained cleansing, displaced abomasum, mastitis etc.

For example, a cow that has a milk fever is 3 times more likely to have a retained afterbirth and 8 times more likely to get mastitis.

Times more likely with Clinical or Sub-clinical Milk Fever



To control milk fever at farm level we need to feed our cows high levels of magnesium and vitamin D while controlling cow body condition score (fat cows are 4 times more likely to suffer from milk fever than cows in the correct body condition score). To date, to overcome issues we have been advising a top up of 10 grms of magnesium before calving.

For the coming season we have increased the levels of magnesium as standard within our pre-calver gold range from 31 grms per day to 40 grms per day, while also increasing our vitamin E levels to 12,000 mg/day. This should eliminate the need to top up with

magnesium, decrease the incidences of milk fever, retained cleansings and mastitis while improving colostrum quality and SCC levels.

If you're buying your dry cow minerals now be cautious and ensure that your mineral is of a high enough specification to minimise metabolic disorders on your farm.

Mineral Feeding Pre-Calving

The objectives of a Dry Cow Management Program are for the cow to calve:

1. In an optimum calcium status, this is a function of the silage mineral status and the level mineral of Magnesium and Vitamin D3 in the pre-calving mineral level.
2. With reduced metabolic disorders, this is influenced by the mineral Magnesium, Iodine, Selenium and Vitamin E & A levels.
3. In an optimum immune status, this is influenced by the mineral, Vitamins and trace elements (Selenium and Vitamins A & E).
4. Producing high quality colostrum; this is influenced by mineral and vitamin supplementation.

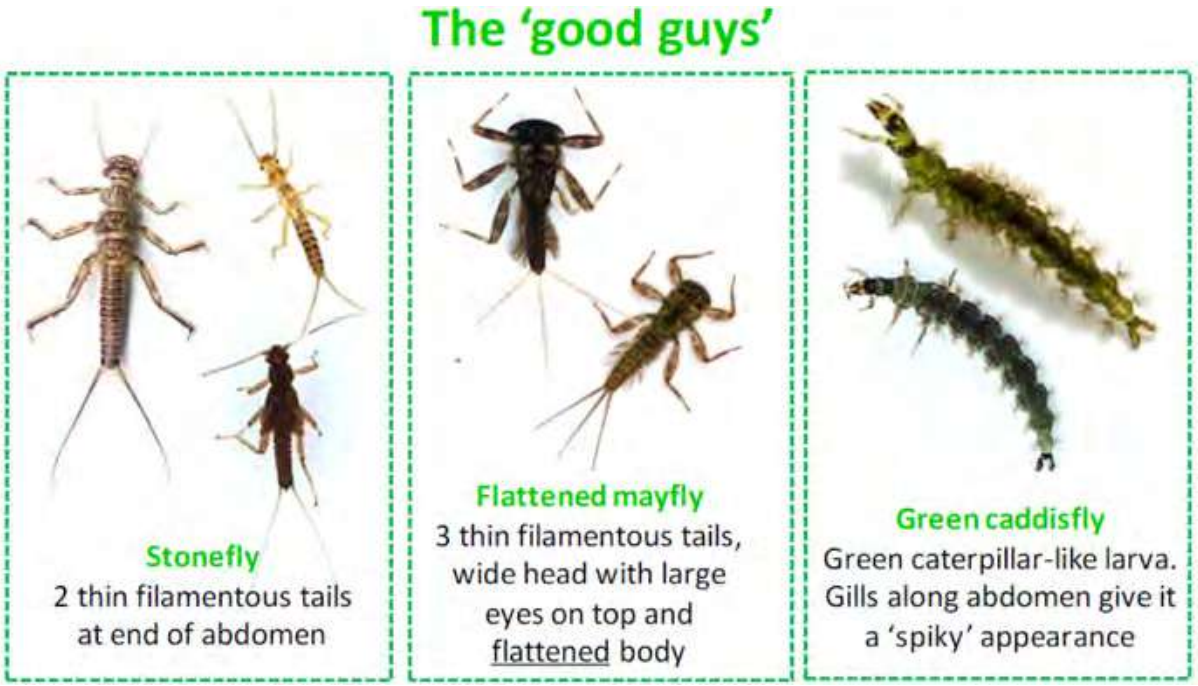
MEASURING WATER QUALITY IN YOUR STREAM

By LOUISE CAHILL,
Farm Sustainability Advisor

Most animals that live in streams, other than fish, are invertebrates - animals without a backbone, which include species such as water beetles, mayflies and shrimps. There are many different species, some eating algae covering the stones, some filtering the water for suspended food and others predating other invertebrates. They also differ in their environmental requirements, notably their tolerance to pollution in the water. Some species, such as stoneflies, are very intolerant of poor water quality, whereas others, such as aquatic leeches and snails, thrive in polluted waters. The mix of invertebrate species found in a particular stream can then tell us a lot about the stream's water quality.

The Citizen Science Stream Index (CSSI) uses six different types of aquatic invertebrate to assess a stream's water quality - three that are characteristic of good water quality (the 'good guys') and three that are characteristic of poor water quality (the 'bad guys') (see below). All six types are very easy to distinguish in the field, even for the non-expert. The numbers of good guys and bad guys in a particular stream will then give us a good idea about how clean or polluted the stream is.

The below Citizen Science Stream Index (CSSI) is a simple management tool to check the health of your local stream. It has been designed by Professor Simon Harrison at UCC. A video showing how to complete the below sheet is available at https://www.youtube.com/watch?v=HsDZ0siO6Ds (or search 'Citizen Science Stream Index explained' on Youtube).



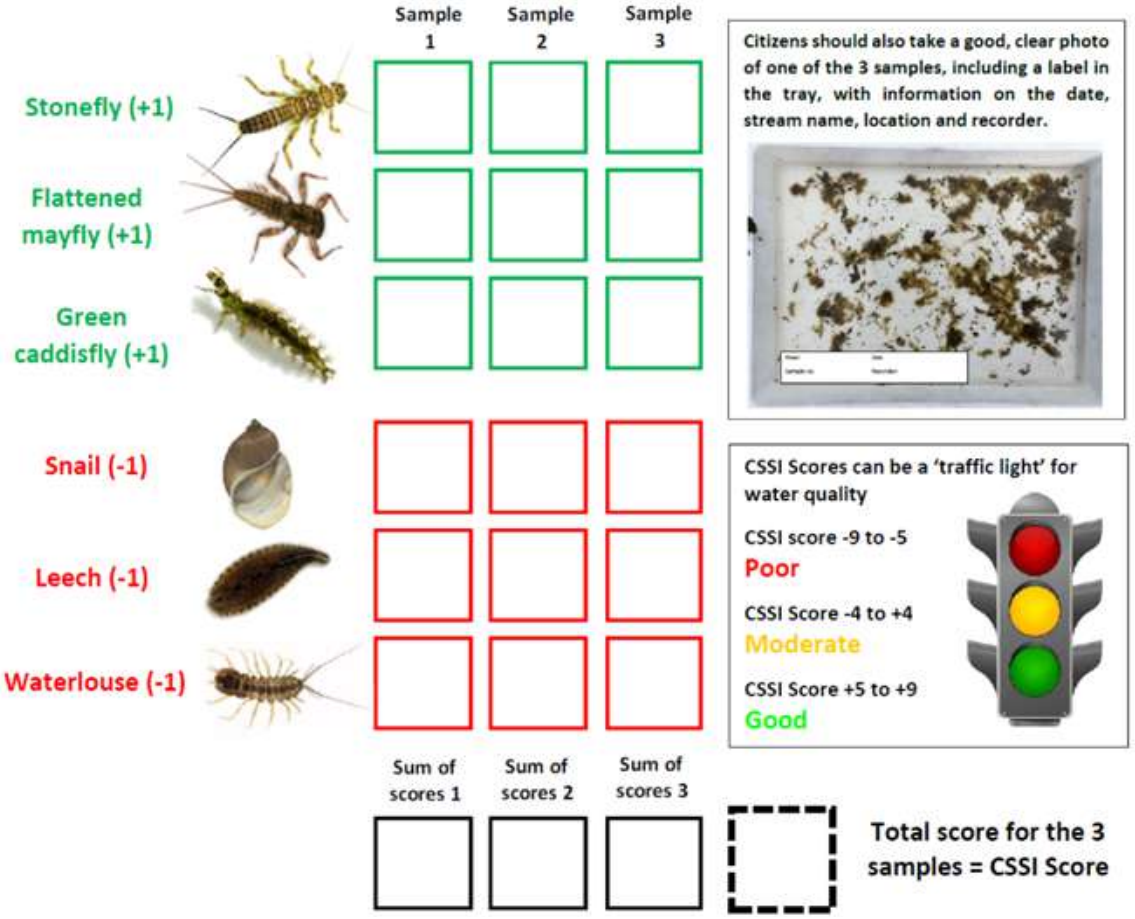
The Local Authority Waters Programme, in association with Dairygold will be carrying out FREE WORKSHOPS about water quality and showing attendees how to carry out a CSSI over the coming few weeks. If you would like to participate in such a workshop, please email Community Water Officer Catherine Seale-Duggan at cseale@lawaters.ie or contact Ciara Donovan at 086 7930863 to express your interest in attending a workshop.

The Citizen Science Stream Index (CSSI) is based on the presence or absence of six key aquatic invertebrates. Three pollution-sensitive invertebrates ('good guys') are commonly found in clean streams and three pollution-tolerant invertebrates ('bad guys') are commonly found in polluted streams.

Citizens use a pond net to take three 30-second kick-samples (the three samples should be a few metres apart) from a shallow (<20cm), gravelly, fast-flowing part of the stream. The invertebrates captured in each sample are examined in a white tray on the bankside. The six key invertebrates are easily spotted amongst the many other species in the tray, by their characteristic shape, colour or movement.

The citizen will score each sample depending on which, if any, of the six key invertebrates occur in the tray. The three **'good guys' have a score of +1** each and the three **'bad guys' have a score of -1** each.

The score for each kick-sample can range from +3 (all three good guys and no bad guys) to -3 (all three bad guys and no good guys). When the scores from all three samples are added together, the CSSI ranges from +9 to -9.



DAIRYGOLD MILK QUALITY SUSTAINABILITY WINNER FOR 2021

By LOUISE CAHILL,
Farm Sustainability Advisor

Liam and Geraldine Herlihy are milking 72 pedigree Holstein cows with the help of their family in Bruree, Co. Limerick. Liam and Geraldine were delighted to win the Dairygold Milk Quality Sustainability Award 2021 and recently showed me around their impressive farm.

From left; James, Liam, Leanne, Geraldine, and Daniel Herlihy.

The Herlihy Farm Experience

Driving down the avenue to the farm I passed a line of young trees that were planted in recent years which will transform into a nice tree line over time. Entering the farmyard, I was greeted with a sea of colour from flowers and ornaments, there was nothing out of place. Liam and Geraldine welcomed me, and we set off to walk the farm. The Herlihy's are involved in the LEAN farm programme and the lean principals could be seen working throughout the farm and are central to their farm's sustainability helping them to simplify and streamline tasks. Liam and Geraldine are implementing several sustainability measures on their farm.

The Herlihy farm yard.

Average farm stats for 2021	
Cow Numbers	72
SCC	97
TBC	8.5
EBI (€)	97
Kgs Milk Solids/cow	514
Butterfat%	3.82
Protein%	3.43
Feed (kgs/cow/year)	900
Carbon Footprint (Co2e/kg FPCM)	0.77

Biodiversity

Throughout the farm there is a network of fantastic hedgerows alive with birds and wildlife. Over the last number of years Liam has changed his hedge cutting practices, creating an "A" shaped hedge, trimmed as high as possible and leaving one whitethorn plant untrimmed every 300m to escape and flower each year. The width and height of these hedges creates a superb habitat for several different wildlife species. Herbicides are only used on the farm at times of reseeding and to spot spray noxious weeds. Precautions are taken when using herbicide such as spraying between 8pm and 8am to avoid contact with bees foraging and only spraying in suitable weather conditions (no rain forecast, not windy). Liam showed me an insect/bee hotel in the farmyard that he handmade which exemplifies his attitude to biodiversity and all things natural. The Herlihy's have planted over 100 trees around the farm in the last number of years and last year availed of the free trees provided through Dairygold's Biodiversity Tree Project.

Handmade bee / insect hotel in the farmyard

Hedges on the Herlihy farm

Reducing N Fertiliser

The Herlihy's soil sample every 2 years and follow their nutrient management plan closely. Lime is applied annually or at reseeding to maintain soil pH. Reseeding is carried out on 10%-15% of the farm each year and clover is included to the grass mixture at a rate of 2 kgs/ha. The Herlihy's have been using clover successfully for the last 6 years on the farm with over 80% of the grazing platform containing clover, which has resulted in a 50% reduction in chemical Nitrogen. Liam is also making the most out of his slurry by using LESS. Liam has invested in a dribble bar which allows him to actively target nutrients where they are needed.

Clover Sward on the Herlihy farm.

Milk Quality

Liam and Geraldine milk record 4 times a year to help with mastitis control and breeding decisions. They plan to increase to 6 milk recordings per year to help with selective dry cow (SDC) therapy decisions. The Herlihy's are currently using SDC therapy on 60% of the herd. The Herlihy's herd currently have an EBI of €97 which they are improving on year on year. Herd fertility is very impressive on the farm with an empty rate of 3% last year.

Water Quality

The Herlihy's are conscious of maintaining and improving water quality on their farm. All drains and water courses on the farm are fenced back 1.5m from the bank to create a vegetative buffer to prevent nutrient loss. Slurry and fertilizer buffers are taken seriously and adhered to on this farm, at no apparent detriment to the grass cover. Liam explained that he was growing 16t/DM/ha with his cows producing 514kgs/MS/cow on average in 2021. All the roadways are cambered away from drains and watercourses with several soiled water diversions into the field evident. In the clean yard areas on the farmyard the Herlihy's have diversion points in place to allow for the collection of water into a tank if the yard is in used or animals are passing through. This prevents excessive amounts of rainwater from being collected when the yard is cleaned and not in use.

1.5m fenced vegetative buffer out from farm drain

It is clear that the Herlihy's make conscious decisions on their farm to protect the environment and promote biodiversity. The actions the Herlihy's have implemented to improve sustainability comes with the bonus of complimenting their farm finances. Dairygold would like to offer a sincere congratulations to the well-deserved winner of the Sustainability Milk Quality Awards for 2021.

DAIRYGOLD GO-TO FARM INITIATIVE

FARMER PROFILE: John Tobin, Coolaneague, Kilworth, Co. Cork.

John, Marie, James and Eoin and and parents Tom and Catherine milk 56 cows at Coolanaegue, Kilworth, Co Cork with beef on the outfarm. John also runs a busy contracting business in tandem with the farm. John says that the Dairygold Leanfarm programme has been a great inspiration along with his ability to manage labour on all enterprises with put many time savers in place. One example is the fast fill method for filling diesel into the tractors saving five minutes per fill (photo 1).

John attributes his low SCC to wearing gloves, the prep of each teat pre milking, then drawing the teats and finally post dip. Milk recording is reviewed in detail and samples of suspect high SCC cases and fresh calvers are dropped to Mitchelstown and tested in Mallow lab which is a service appreciated to have available. Samples are posted to Animal Health Lab for cultural and sensitivity analysis to find what bug is present and what treatment will improve the problem cow. John rubs uddermint to the udder if swollen and to the freshly calved heifers for five days post calving.

SAFETY

Slurry gas signs are fitted to warn of the danger, and all are advised to beware of the bull. The circular collecting yard built by his father Tom has a safety barrier to protect the milker (photo 2). All machinery is placed in an accessible and safe place (photo 3).

SECURITY

John has many cameras (photo 4) fitted on his premises to deter criminals from theft and to make his family feel safer in their home. The newest camera is at the entrance where an automatic gate has been fitted as well. The entrance (photo 5) allows plenty room for the milk tanker, feed delivery trucks and Johns own machinery to navigate their way onto the farm.

ADDITIONAL LEAN FEATURES

Other features are the very accessible toilet from the yard and the wellington store at the back door. The generator (photo 6) is ready to go when required with its own custom-made mini shed. The Tobin premises are very tidy and organized for a yard with so much activity. The slurry sieve (photo 7) removes any debris that may block the slurry spreader reducing time wasted unblocking slurry tank pipes.

SUSTAINABILITY

The Tobins are all conscious of caring for the environment where there is plenty of room for wildlife with hedges and nature areas evident. They also understand the need to protect water quality (photo 8).

John Tobin view on the main BENEFITS of Leanfarm

"Lean is improving what you do and keep doing it well"

dairygold leanfarm

Making farms safer and more sustainable. Saving farmers time, money and effort.

Benefits delivered to the Tobin Farm

- ✔ **Time Savings.**
- ✔ **Less Stress.**
- ✔ **Improved work life balance.**

Questions on Leanfarm?

Contact the Milk Advisory Helpdesk on 1800-840-840 or John's Milk Advisor William Ryan on 086 246 1633.

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GRASSLAND EXCELLENCE FOR IRISH LIVESTOCK

GRASS MATTERS

By JOHN MAHER,
Grass10, Teagasc, Moorepark

BUILDING GRASS IS THIS MONTH'S FOCUS

August is the month to start building grass for the autumn. The growth of grass during the next six weeks is crucial as the rate of grass growth (supply) will be less than what is eaten (demand) by mid-September.

Grass is needed in the diet of the cow for as long as possible into the end of the year.

Why?

- Grass is the cheapest feed
- Milk solids will be higher
- Milk price will be higher
- Body condition will be better
- Longer grazing season reduces Greenhouse Gas Emissions
- Longer grazing seasons reduces slurry requirements

How do we ensure we will have enough grass??

The rotation length must be around 28-30 days by Sept. 1st. So if we have 100 acres of grazing ground we will be grazing about 5 Acres/day (20 day rotation) at the start of August. By the end of the month we need to be grazing about 3.5 acres/day (28 day rotation). So we must gain about 2 days in rotation every week during August. Farm cover targets are 300+ kgDM/cow (see table).

Autumn Grazing Plan

"PastureBase Ireland clearly data demonstrates that many dairy farmers end up with a lower supply of grass than they should have entering into autumn."

August is a crucial month to build grass supply for autumn. An autumn grazing plan is needed to make sure that there is enough grass available for autumn grazing.

On many farms, silage area comes back into grazing in August and thereby lengthening the rotation. Not all dairy farms have silage area available to graze on the platform. This makes it more difficult to build grass supply. Removing other stock from the platform (heifers, calves, cull cows, cows to be culled etc.) will lower the stocking rate thereby reducing feed demand. Many farmers will feed silage (made from surplus grass) to reduce feed demand also helps to

build grass supply. In reality, it takes a combination of different actions to increase grass supply during august. Whatever the choice, it is better that additional feed goes into the herd during August to allow grass supply pick up rapidly rather than later on when grass growth is much slower. If things are not going to plan during August in terms of building grass supply, action needs to be taken.

So it is important that a rotation length of 28-30 days is reached by September 1st. It is important to take advantage of August grass growth rates in order to build grass supply. Average grass growth for August is about 60-65 kgDM/ha/day but grass growth can also be 20-25% higher especially on lower stocked farms.

If some farmers end up with too much grass entering into the autumn (rotation lengths well over 30 days entering September) this should be made into winter feed. So if the rotation length is gaining too quickly during August, the worst quality paddocks should be removed for baled silage. The earlier this surplus grass is removed, the easier it is to rectify the problem. Outlined below are the grazing targets for dairy farms for August.

AUTUMN GRAZING TARGETS

Date	Cover/Cow (Kg DM)	Average Farm Cover (Kg DM/Ha)	Rotation Length
STOCKING RATE OF 2.5 LU/HA			
1st August	180	450	20 Days
Mid - August	200	500	25 Days
1st September	300	750	30 Days
STOCKING RATE OF 3.0 LU/HA			
1st August	180	550	20 Days
Mid - August	250	750	25 Days
1st September	330	990	30 Days
STOCKING RATE OF 3.5 LU/HA			
1st August	190	665	20 Days
Mid - August	220	770	25 Days
1st September	280	980	30 Days

Completing an autumn grazing budget on PastureBase is a very useful tool to help every farmer who uses the database reach the autumn grazing targets!

P & K Catch-up!

A lot of the soils in the Dairygold Region are deficient in Phosphorus & Potassium (K) i.e. Index 1 or 2 for Phosphorus & Potassium. Almost every dairy farmer should be applying a fertiliser with P (if allowance available) & K during August. After August, there is only 2 weeks left to spread nitrogen (N) and Phosphorus (P) fertiliser. Phosphorus levels rise slowly in the soils after application of P fertiliser or slurry. That is why it is necessary to apply P fertiliser now to improve soil fertility for the spring when the grass needs P the most. Converting surplus grass into baled silage harvests a lot K in particular. Most dairy farmers will need to consider spreading compound fertilisers on their grassland during August.

DAIRY FARMING ON DIFFICULT / HEAVY LAND

By JOHN MAHER, Ger Courtney & Tom Condon
Heavy Soils Programme, Teagasc.

Grass production for the 1st half of the grazing season on the farms in the Heavy Soils Programme has been better than expected. The average level of grass production was about 6.7 tons DM/ha to early July. The range in grass production between the farms was 6 to 7.6 tons DM/ha. Depending on how the autumn comes in terms of weather conditions, 13 tons of DM/ha could be produced. This would place these farms in the top grass performing farms in the country. Outlined below is the current performance of the farms in the programme. Cows are averaging 1.9 kg MS/cow (23 litres at 4.15 % fat and 3.6% protein) on 3 kg meal.

Grass Summary:

Farm	Farm Cover (kg DM /ha)	Cover/LU (kg DM /LU)	Stocking Rate (LU/ha)	Growth/ha (kg DM /ha/day)	Demand/ha (kg DM /ha/day)	Pre Grazing Yield	Rotation Length Now (Days)	Grass Intake/Cow (kg DM /cow)	Meal Intake (kg/cow)	Kg MS/cow
Macroom	608	199	3.05	65	52	1350	21	-	2.0	1.98
Doonbeg	573	211	2.71	69	41	1600	26	-	3.5	1.99
Athea	583	196	2.97	56	47	1500	21	-	2.0	1.65
Castleisland	579	192	3.02	60	47	1200	26	-	4.0	1.87
Kiskeam	628	196	3.20	59	51	1800	18	-	2.0	1.64
Rossmore	726	210	3.45	73	55	1600	21	-	3.0	2.02
Average	***616***	***201***	***3.07***	***64***	***49***	***1508***	***22***	***-***	***3***	***1.86***

One of the top priorities for the farms in the Heavy Soils Programme is to make enough silage for next winter and try and put a silage reserve in place also. August is often a high growth month on heavy soils farms and is often a good opportunity to clean up paddocks and generate more grass to be converted into baled silage.

August Grazing Plan:
August is a crucial month to build grass supply for autumn. However, the plan is different from those on drier farms. The target rotation length should be about 25-26 days by the end of August (grazing 4 acres/day on a 100acre platform). If the rotation length is longer than this or appears to be getting any way slower, the heaviest paddocks should be removed rapidly as baled silage. If some farmers end up with too much grass entering into the autumn (Rotation lengths well over 30 days entering September) this should be made into winter feed. So if the rotation length is gaining too quickly during August, the worst quality paddocks should be removed for baled silage. The earlier this surplus grass is removed, the easier it is to rectify the problem.

Very long rotations result in very large quantities of grass to be grazed. This grass can prove very difficult to graze during poor weather conditions. The supply of grass on heavy farms is rarely scarce in autumn. Too much is often the challenge! Ground conditions are the main challenge. It is important to avoid grazing covers of grass over 2000 kg DM/ha.

The growth of grass during the next six weeks is extremely important as the rate of grass growth (supply) will be less than what is eaten (demand) by mid-September generally.

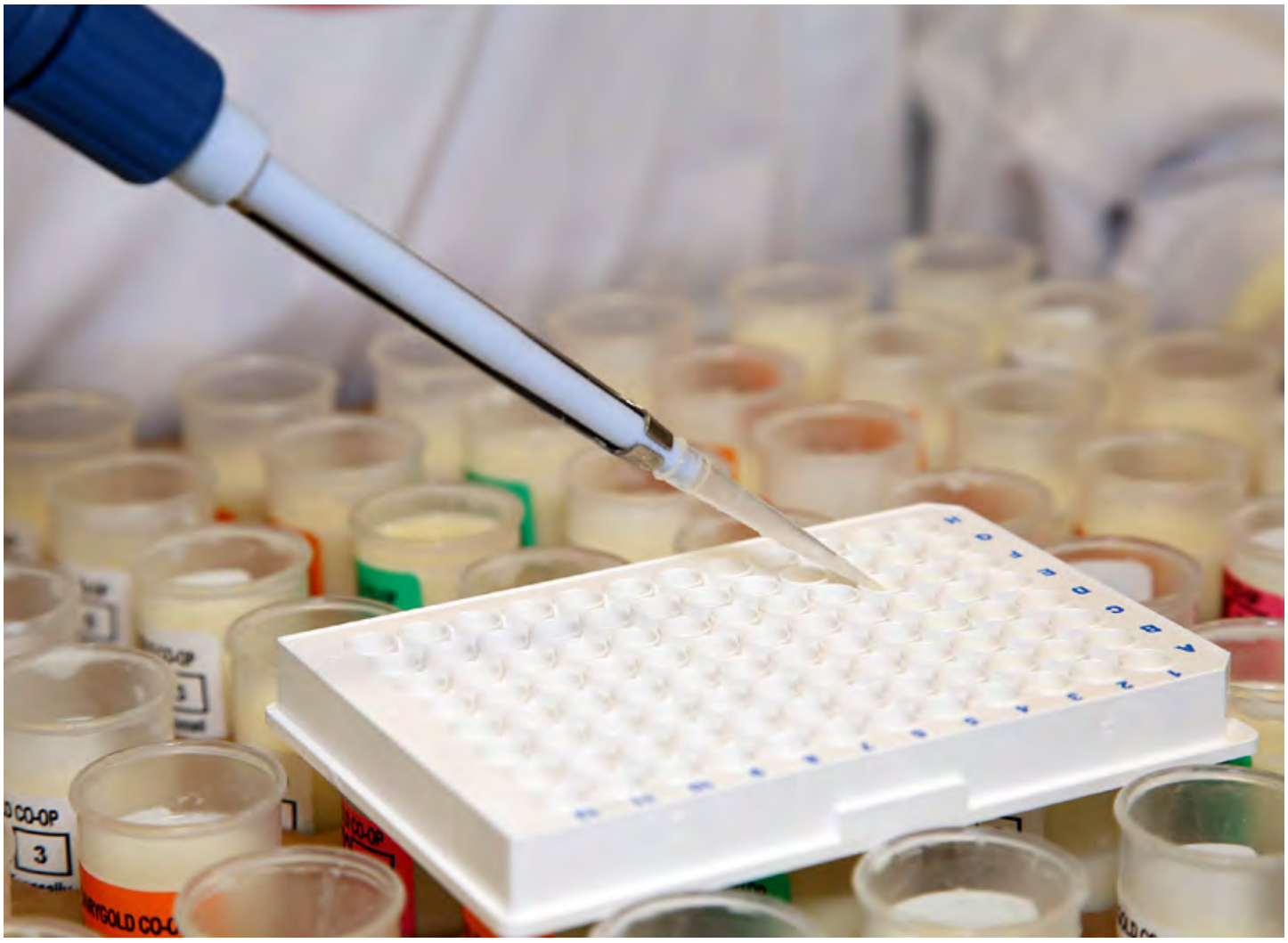
P & K fertiliser
After August, there is only 2 weeks left to spread nitrogen (N) and Phosphorus (P) fertiliser. Phosphorus levels rise slowly in most soils but especially in heavy soils after application of P fertiliser or slurry. That is why it is necessary to apply P fertiliser (if allowance available) now to improve soil fertility for the spring when the grass needs P the most.

As many heavy land farms have been converting surplus grass into baled silage, this process removes a lot of K from the soil. This needs to be replaced. Every 3-4 bales /acre removed is equivalent to about 1 bag of 0:7:30/acre. So most dairy farmers will need to consider spreading compound fertilisers like 18:6:12, 14:7:14 or 10:10:20 on their grassland during August.

ANIMAL HEALTH & FERTILITY

Successful and stress-free Milk recording:

MARTIN KAVANAGH MVB Cert DHH.
Business Development & Sustainability Manager.



A successful milk recording, in terms of the process of the recording and the reliability of the results obtained, relies on multiple factors. The pathway from collecting a true representative sample from a stream of milk flowing through a meter, associating that sample with an individual cow, testing that sample, and producing a result has many moving parts.

1,647 Dairygold supplier herds are milk recorded a minimum 4 times annually. 784 of these herds are EDIY where an AM and PM yield is measured, a single constituent sample is taken, and a mathematical calculation is applied to work out a 24-hour constituent % result. All individual milk samples are tested in the Dairygold milk laboratory.

Milk recording can be broken down into several processes. The first process is the act of recording itself using electronic meters dropped off by an EDIY technician. There are 1500 EDIY meters being used across the Munster catchment and these are constantly monitored and maintained. The reliability of electronic meters and datahandlers is dependent on regular cleaning and maintenance, and care in their use.

To achieve a successful and stress-free EDIY recording, here are some useful tips from the experience of the EDIY trainers:

Before the day of the recording:

- There is no getting away from the fact that recording always adds time to milking. Being prepared, having help and being completely familiar with the data handler and the meter, will result in an easier and more accurate outcome. Generally, recording features at 8 milkings a year out of 600. So, do not record on days where there are significant other demands on your time. The rule at any recording is work slow to go fast!

- Look at the 4 minute "How to do EDIY MR video" on the Munster Bovine website or read the operation sheet to familiarise yourself with the operation of the meter and the procedure before every recording.

- Clip the freeze brands of the cows so they are legible at the recording to speed up the process. This avoids climbing on the railings and risking injury. Update the Freeze Brand on ICBF in advance of the recording - this will ensure that the correct information is on the data handler on the day of the recording.

Working with the meters:

- All EDIY meters are monitored and calibrated regularly. Once discovered, any meter that has failed is taken out of circulation and repaired and calibrated before going back to farm.

- Once the meters arrive, hang them up immediately, plumb them so they hang straight and at least if anything happens during the day and you are running a few minutes late heading for the cows, the parlour is ready to go. The EDIY METERS MUST BE STRAIGHT as a representative sample of the milk is dependent on the even capture of a percentage of the milk through one outlet in the top of the meter.

- IMPORTANT TO NOTE THAT ONCE THE METERS ARE PLUMBED DO NOT PUT WATER THROUGH THE MILKING MACHINE.

- Once you are ready to milk and the parlour is sprayed down, turn on the meters. It is IMPORTANT to take your time to let each meter activate. Push up the wash valve. DO NOT RUSH THE DATA HANDLER. A couple of extra minutes at this stage will make all the difference and avoid frustration later.

- Before you let the cows in to be milked, wipe each Barcode reader (BC) to clean it. This will remove any water splashes that may have landed on the reader when wetting the parlour and will reduce the number of 'Dirty Barcode' errors during the recording. Also, try and reduce splashing from volume washers during the recording as any spatter of liquid on the barcode reader will cause an error. Keep a wipe/cloth on you during the recording to clean the Barcode reader.

- There is a tiny air hole just above where the bottle attaches to the meter. This hole takes in air to agitate the milk to ensure a representative sample is taken. The butterfat % is dramatically affected by the level of agitation of the milk sample. The early part of the milk flow will be lower in fat than at the end of milking. Fat will float to the top of the sample rapidly, so agitation and collection of the entire sample is vital. The airhole also allows air to escape when the bottle is being filled.

- Blocked air holes are often associated with ACR's in the parlour. IF YOU DO NOT TURN BACK ON THE VACUUM TO THE CLUSTER BEFORE YOU PRESS 'FINISH MILKING' ON THE METER, YOU WILL MORE THAN LIKELY GET AN AIR HOLE BLOCKED ERROR. Vacuum is needed for the meter to agitate, sample, and drain.

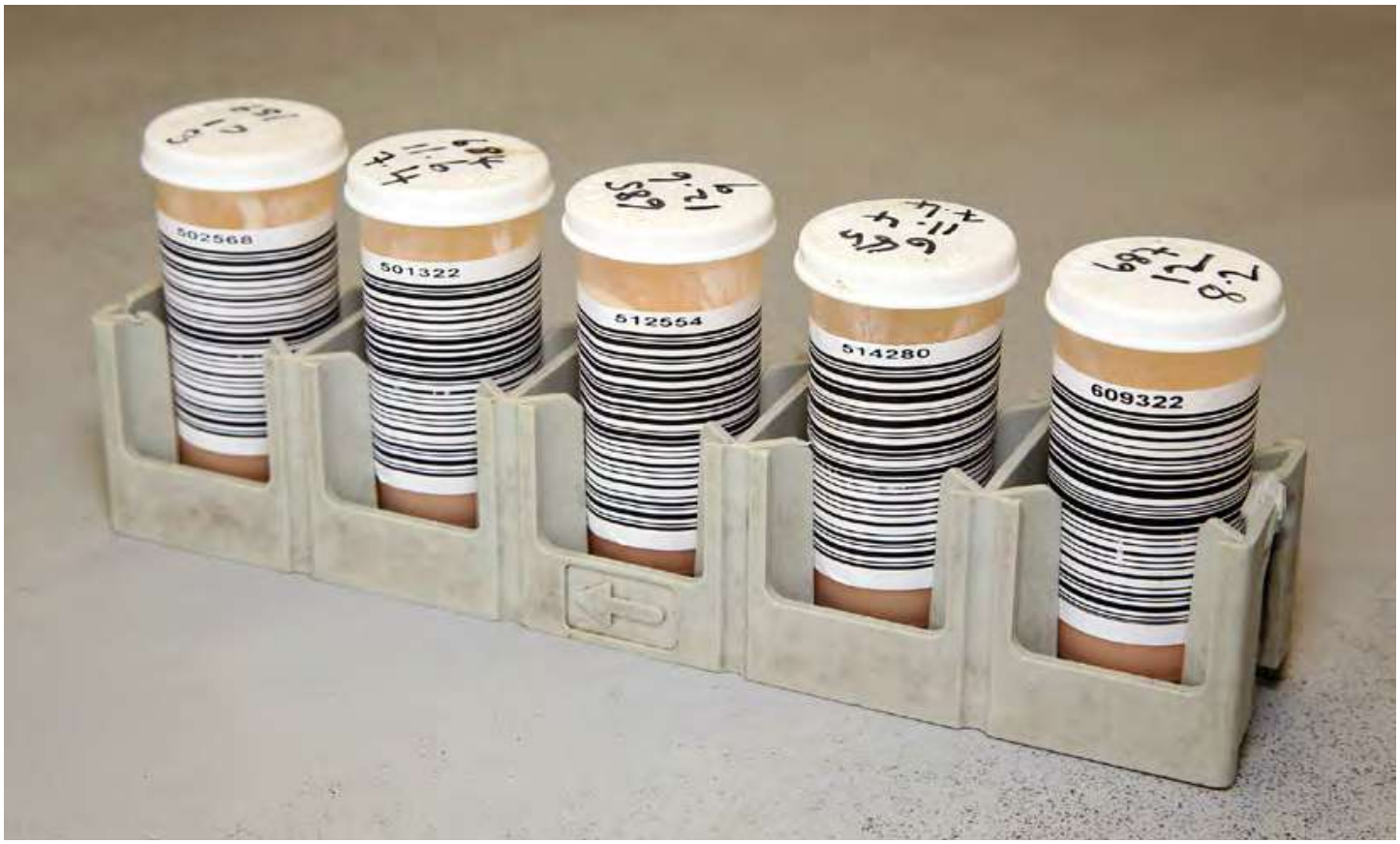
- These holes can get blocked with dirt. It is important

to give the bottle holders a gentle water rinse after the evening and morning milkings to release any blocked airholes.

- Constantly check the meters to make sure there is no select light on the meters. If the select comes on there is an error. By pressing select ONCE on the meter, the datahandler will provide you with instructions to follow to clear the error.

- If a meter needs to be changed it will take time to go out and get the replacement meter, disconnect the original, connect the replacement and plumb it level. Be prepared for this eventuality. Activate the meter by pressing SELECT and pushing up the wash valve the same as you would have done before starting to milk. It will take the meter a few seconds to activate so be patient. When activated, put the cluster on the next cow, enter her number into the datahandler and continue to milk.

- There will be some meters that do not work on the day, and this causes frustration. Meters have sensitive electronic components and can fail. Every effort is made to ensure that the meters that are on farm are functioning correctly. If you do have to change out a meter, make sure to inform the EDIY technician so that the necessary checks are completed before it goes to another farm.



Having a routine:

- To have a successful recording, you must have a routine you follow in the parlour. Decide who does what so everyone is crystal clear what their job is at the milking. This ensures cows are not missed, the correct numbers are recorded, and meter errors are spotted quickly. If you have been appointed the designated milk recorder for the evening, your job is the datahandler & bottle. Do not worry about changing units. Likewise, if you are supposed to be milking the cows don't interfere with the user of the datahandler. If you do not stay in your lane the recording will melt into chaos.

- Set up somewhere clean, like the dairy, away from cow spatter. It is important to keep the milk sample bottles as clean as possible because they are going to get tested in a sanitised lab. Have clean gloves on and change them regularly if getting dirty.

- Find a workable routine for your parlour. For example, uncap the quantity of bottles that you will need, so if there are 60 cows milking, uncap 60 bottles and put the caps in your pocket. You will find this quicker and easier in the parlour because uncapping a bottle in the parlour during the milking is going to slow everything down. When you are finished milking and it turns out you uncapped too many bottles just recap the extra bottles. It only takes a couple of seconds.

- Once you are ready to start, FILL THE BOTTLE CARRIER WITH ONLY THE NUMBER OF BOTTLES THAT YOU NEED PER ROW. If the row takes 10 cows, only take 10 bottles into the pit in the bottle carrier. That way you know exactly how many bottles you have taken down and capped, and how many you have put up. If you missed a sample from a cow, you know that it is in this row that the sample is missing from. It takes concentration and commitment to the routine.

- When the recording is completed, and the meters are washing, get a sponge/ wet cloth and wipe down the outside of the meters to remove any cow dung. Clean the barcode reader and give the bottle holder a gentle rinse to unblock airholes. Rinse the bottle racks for the next user. Treat the equipment as you would like to receive it.

- As soon as the washing has finished, and machine and meters turned off, strip down the meters and remove them so that the parlour are ready for the next milking. There and then, put the meters and the other equipment and samples in a safe place for the EDIY technician to collect. Don't head off an do another job as you will invariably forget to take down the meters!

- Finally, wash the exterior of all your own meter hosing, put the hoses together and store them in a clean dry place for your next recording. Make a mental note of where you put them so that you can easily find them for the next recording but not in a place where you are falling over them for the next 8 weeks.

In summary, EDIY recordings that are well planned result in fewer metering problems, more reliable results, and a more rewarding and stress-free recording.

CHFC MATTERS

By CHRISTOPHER McCARTHY,
CHFC Public Relations Officer

The rain didn't stop a big crowd come out for our first field evening of the year at the "Browney" herd of the Kearney family.It was great to see on the night the 7 bull mothers that have sons in AI. There was also a great talk on the night by ICBF Kevin Dowling on the EBI Index and further changes in it.

The results on the night were as followed:

Master Judge: Stephen Shannon (Ballydehob)

	Under 12	Under 18	Under 26	Ladies	Senior
1	James Coleman	Louise Coleman	Christopher McCarthy	Ursula Forest	James Crowley
2	Josephine Kelleher	Sarah Shannon	Brian Osborne	Ciara O Regan	Michael Coleman
3	David Bodrick	Dylan Bryan	Denis Coakley	Seona Osborne	John O Sullivan Snr
4	Olivia Jones				John O Flynn
5	Robert Jones				Donal Osborne
6	Liam Kelleher				Martin Kennedy
7	Danny Murphy				

National Open Day

The national day took place on the 7th of July at the Frawley family farm in Limerick. A red-hot day with red hot cows on the day. Well done to all club members that took part in the stock judging. Cork club members also came home with some prizes. Well done to our Under 18 stock judging team who came third on the day their team was made up by Sarah Shannon, Katie Leahan, Abbie nagal. Also, big congratulations to Ricky Barrett who came 2nd in the Over 80 section in the herds competition.

Cork Calf Show

Our club calf show took place on the 4th of July in the West Cork equestrian centre. Our Judge on night was Mr Michael Yates from Scotland. Over 55 calf's on the night and 25 handlers so he had his work well cut out on the night.

Champions on the night were as follows:

- Handler Champion: Paul Murphy
- Res Champion: Sarah Shannon
- Hon Champion: Josephine Kelleher
- Calf champion: Ardarostig Bateman Sunray, Sean Murphy
- Res champion: Bawnmore Lambda Lasenza , John O Connor
- Hon mention: Ballydehob PR Mary, Robert Shannon

Up Coming event

Our club BBQ will be on the 10th of august in the international airport Hotel. A great night for all the family also on the night will be the results of the herd competition will be given out on the night. If anyone is look for tickets, please contact Richard Geary on 087 909 9589.

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HAVE YOU PREPARED YOUR SHEDS FOR WINTER HOUSING?

As the workload eases at this time of year, it is a good opportunity to review your housing for the winter period and to carry out any necessary repairs and maybe plan for longer term solutions. In Ireland, winter housing tends to coincide with damp weather conditions and length of housing varies between different parts of the country up to six months in northern parts.

The housing of your cows and heifers in a clean and comfortable environment will ensure that the highest quality, clean milk free from mastitis will be produced. Any reduction in teat end contamination improves mastitis control during the dry or lactation periods. Two major factors that lead to an increase in mastitis and bacterial contamination of milk are:

- Housing where the confinement of cows increases closer cow to cow contact and leads to increased faecal contamination.
- Humidity where damp conditions promote the movement of faeces onto udders and increases the level of environmental bacteria.

The Winter Housing Checklist available on the AHI website is a very useful reference to look at cow hygiene as well as housing and management practices on your farm. In addition, you may consult with your veterinary practitioner, farm advisor or CellCheck Advisor using the CellCheck Farm guidelines available at Animal Health Ireland CellCheck Farm Guidelines as a reference to discuss areas of concern on winter housing. Cow hygiene scoring is your starting point to look at shed maintenance for the winter.

The key questions on shed maintenance are:

Are your sheds clean before housing?
At this time of year, the most important task is the cleaning and disinfecting of the sheds to reduce contamination and any possible carry-over of environmental contamination from the previous winter. This reduces environmental contamination for all diseases sources. The use of approved disinfectants from DAFM Approved Disinfectant List is ideal. Ensure that all organic matter (dried out manure, discharges, soil etc) is removed by scraping or power washing before applying disinfectant. Allow maximum contact time to ensure that the disinfectant works.

If you are using an automatic yard scraper, book a service to ensure that it is working correctly and scraping up to 8 times a day.

Pay particular attention to your calving pens. One pen per 25 cows calving that can be easily cleaned and disinfected between calvings is ideal. As recently calved cows are most vulnerable to infection. Calved cows consume large quantities of water, therefore ensure that there is easy and immediate access to a single source supply of clean water after calving.

Are your sheds dry?
Look at water troughs in the sheds.

- Ensure that all are fit for purpose with no leakage.
- Look at your troughs or drinking bowls daily to ensure that they are clean.
- There should be at least 1 bowl per 10 cows or 6cms of trough space per cow to satisfy their thirst.

Water loss (litres) per day

- 4-5l Skin/Respiration
- 20 l Urine
- 30 l Faeces

Cows are 'wet animals' in particular high yielding cows losing up to 55 litres of moisture per day. Avoid a build-up of heat and moisture as damp, humid and hot conditions predispose to mastitis and heat stress leading to excessive standing. If you see condensation drips on your cows or if you cannot see at the far end of a shed, ventilation may be inadequate.

As hot air rises in a shed, you can ensure that adequate ventilation occurs by providing the following:

- Adequate air exit through a 9-12” opening along the roof apex.
- Roof sheeting with 0.5-0.75” spacing; alternatively, use angle grinder near apex on every 4th -6th ridge of sheeting to provide spacing.
- 5” baffled inlet spacing at the sides or gable end of the shed.
- Adequate drainage: standing water increases humidity.

Are your cows comfortable during housing?

Well-designed cubicles ensure the cows are comfortable, rarely lie on concrete and remain clean. A cow should be able to lie up to 12-14 hours of the day. Cubicle discomfort can reduce lying time to below 9 hours with less rumination. The main points of contact for a cow using cubicles are her knees and hocks. Assess comfort using hock or knee scores during milking in a sample of 20 cows. If less than 1% of your cows have scores of 3, cow comfort is adequate. If not adequate,

- Repair faulty or loose cubicle stands.
- Replace worn or jarred stands.
- Eliminate cubicle base pitting.
- Replace worn or damaged floor matting.
- Remove any obstacles or protrusions to allow free cow flow in the sheds.
- Avoid rigid divisions between cubicles if possible.

Appropriate levels of stocking density contribute to good cow comfort. There should be 110 cubicles for every 100 cows and cubicle design is important when training of in-calf heifers to accept cubicles. Cubicle size should be 7.5 -8’ long and 4’ wide depending on the size of cow and allow a 4’ forward lunging space for easy standing and neck extension to ruminate. No pressure should be put on the rumen in the lying position so that the cantilever height should be 22” from ground level.

In conclusion, refer to Management Note L to also examine the impact of housing on mastitis and SCC at Management Note L CellCheck Farm Guidelines on Animal Health Ireland website.

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